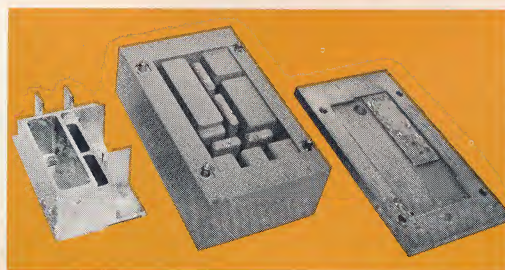
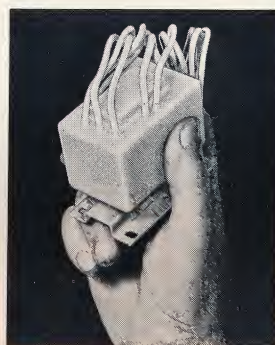




# RTV

## SILICONE RUBBER



SILICONE PRODUCTS DEPARTMENT

GENERAL  ELECTRIC

WATERFORD, NEW YORK

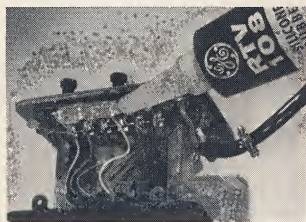


# RTV

## SILICONE

## RUBBER

# a broad range of compounds to meet a variety of application requirements



**RTV** provides instant, see-through insulation as well as vibration resistance and environmental protection. Applied directly from the tube, it needs no pre-mixing.

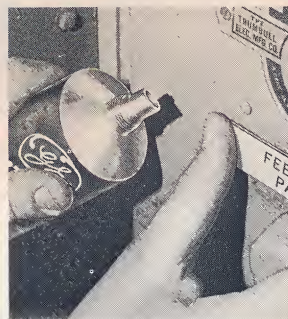


**RTV** comes in several viscosities, permitting pouring or painting around the original part. Its flexibility permits one-piece molding of complicated parts and easy removal without knock-out pins.



**RTV** adhesive/sealant, straight from the tube, can be used for insulating open wiring, for on-the-spot caulking, gluing and soldering. Virtually ageless, it will not stress-crack or weather.

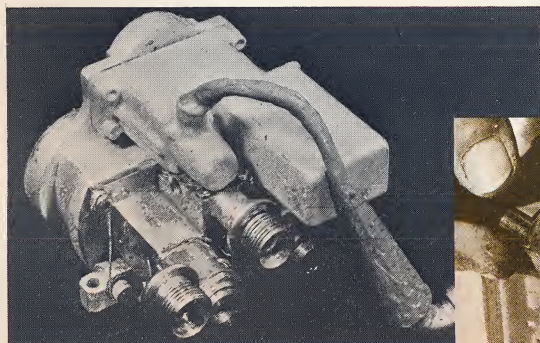
**RTV** speeds potting rates, cures to a clear, resilient compound in 15 minutes at 150°C. It protects assemblies against thermal shock, vibration, moisture, ozone, corona, dust and chemicals.



**RTV** eliminates need for screws and drilling when used to affix name plates and decorative emblems on any surface.



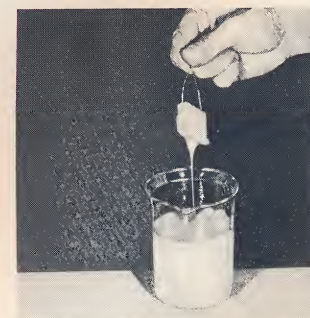
**RTV** combines low viscosity with high strength for filling small and complicated configurations. Excellent physical strength makes it a superior mold material for prototypes and short-run production.



**RTV** silicone rubber coating protects mechanical assemblies, like this three position activator, against moisture and chemicals. RTV is used on almost all U.S. missiles and space vehicles for sealing, electronic potting and encapsulating, thermal insulation.



**RTV**, transparent or opaque, provides resilient protection against moisture, ozone, thermal and mechanical shock. It flows freely around complicated parts, can be cut away to replace internal components.



**RTV** penetrates deep into transformer coils. As an encapsulating material, it provides excellent dielectric strength with practically no shrinkage. Cure time at room temperatures can be varied from minutes to hours.

# these properties of G-E RTV Silicone Rubber make possible improved product performance, lower costs, simplified production methods

General Electric RTV (room temperature vulcanizing) silicone rubber compounds are liquids or pastes that cure to strong, durable, resilient silicone rubber. Most RTV compounds require the addition of a catalyst to initiate this cure. However a new RTV adhesive/sealant is available in ready-to-use form which starts to

cure as soon as it comes in contact with the air. Cure times of the two-package RTV's can be varied from 10 minutes to 24 hours depending on the type and quantity of catalyst used. A wide range of viscosities and properties meet a variety of application requirements.

## ■ RESISTANCE TO TEMPERATURE EXTREMES

Retains elastomeric properties over  $-190^{\circ}\text{F}$  to  $600^{\circ}\text{F}$  temperature range. As a thermal barrier or ablative coating, useful up to  $9000^{\circ}\text{F}$ .

## ■ GOOD PHYSICAL AND ELECTRICAL PROPERTIES

Physical toughness and insulating ability are retained over a wide range of operating temperatures.

## ■ RESISTS OZONE, WEATHERING AND AGING

RTV silicone rubber stands up for long periods of time under conditions that break down ordinary elastomers.

## ■ CHEMICAL RESISTANCE

RTV resists attack from many common oils, solvents and chemicals.

## ■ GOOD BONDING ABILITY

Bonds to *properly primed surfaces* are stronger than the rubber itself. Ready-to-use RTV adhesives do not require a primer.

## ■ EASY RELEASE

RTV silicone rubber has the inherent ability of silicones to release from sticking — ideal for molds or release coatings.

## ■ AVAILABLE IN WIDE RANGE OF VISCOSITIES

From 12 to 12,000 poises (1200 to 1,200,000 centipoises)

## ■ CONTROLLABLE CURE TIMES

Cures at room temperature. Cure time can be varied from 10 minutes to 24 hours by curing agent selection.

## ■ MINIMUM SHRINKAGE

Shrinkage as low as 0.2%. RTV compounds are 100% solids, contain no solvents.

## ■ THICK SECTION CURE

RTV can easily be cured in thick sections.

## ■ RESILIENCE, ELASTICITY

RTV silicone rubber is a true elastomer, not a flexible plastic. It absorbs shock and vibration, retains elastomeric properties at extreme temperatures.

## ■ APPLICATION VERSATILITY

RTV compounds, available in viscosities from a pourable liquid to a thick paste, can be applied to objects of virtually any size and shape. Easy mixing and curing of RTV makes it an ideal "do-it-yourself" material for many applications.

## ■ FOR HIGH TEMPERATURE SEALING AND CAULKING

No other sealant can match RTV for extreme temperature performance, durability, flexibility and ease of application. Wherever they are used, these tough, flexible sealants bond to materials with a strength exceeding that of the rubber itself. Latest development is a sealant requiring neither curing agent nor primer to make application even easier.

## ■ FOR ELECTRICAL POTTING AND ENCAPSULATING

RTV's wide usage as electrical insulation is based on its good electrical properties coupled with its resistance to ozones and temperature extremes. It is used for potting electronic components and assemblies, for impregnating and encapsulating aircraft transformers, for encapsulating random-wound electrical motors and dozens of other uses.

## ■ FOR AEROSPACE APPLICATIONS

RTV methyl-phenyl compounds have been formulated to meet extreme temperature requirements in many aerospace applications. They maintain flexibility at  $-150^{\circ}\text{F}$  and below, yet provide long-term resistance to extreme high temperatures. These RTV's are used for electrical and mechanical insulation, and heat shield fabrication.

## ■ FOR FLEXIBLE MOLD FABRICATION

RTV is finding increasing usage as a flexible mold material because it offers the most precise reproduction of surface detail possible. Because it can replace expensive metal or hand-machined molds, it is the basis for substantial savings in such applications. Moreover, no release agent is required for RTV molds used in casting epoxy and polyester.



# RTV

## SILICONE

## RUBBER

# selector guide

(Requires No Curing Agent)

READY-TO-USE RTV

ADHESIVES/SEALANTS

	-102	-103	-106	-108	-109	-112	
<b>MAJOR USES</b>							
Sealing	X	X	X	X	X	X	
Potting, Encapsulating						X	
Flexible Mold Material							
Aerospace (Extreme Temperature)	X		X				
<b>TYPICAL UNCURED PROPERTIES</b>							
Color	White	Black	Red	Trans.	Alum.	White	
Consistency	Soft, Spreadable Thixotropic Paste					Liquid	
Viscosity, Poises	—	—	—	—	—	300	
Shelf Life (Months)	12	12	12	12	12	12	
<b>TYPICAL CURED PROPERTIES</b>							
Specific Gravity	1.07	1.07	1.07	1.07	1.07	1.05	
Hardness, Shore A Durometer	30	30	33	30	30	30	
Tensile Strength, psi	350	350	350	350	350	300	
Elongation, %	400	400	400	400	400	350	
Tear Resistance, die B, lb/in	45	45	50	45	45	25	
Brittle Point, °F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	
Linear Shrinkage, %	1.0	1.0	<0.5	1.0	1.0	1.0	
<b>HEAT RESISTANCE</b>							
Thermal Conductivity BTU-ft/hr ft <sup>2</sup> °F @ 200°F	0.12	0.12	0.12	0.12	0.12	0.12	
Coefficient of Thermal Expansion in/in °F (0°-350°F)	< 15x10 <sup>-5</sup>	< 15x10 <sup>-5</sup>	< 15x10 <sup>-5</sup>	< 15x10 <sup>-5</sup>	< 15x10 <sup>-5</sup>	< 15x10 <sup>-5</sup>	
<b>TYPICAL ELECTRICAL PROPERTIES</b>							
Dielectric Strength, volts/mil 0.075" thick	500	500	500	500	500	500	
Dielectric Constant @ 60 cps	2.8	2.8	2.8	2.8	2.8	2.8	
Dissipation Factor @ 60 cps	.0026	.0026	.0026	.0026	.0026	.0004	
Volume Resistivity, OHM-cm	3x10 <sup>15</sup>	3x10 <sup>15</sup>	3x10 <sup>15</sup>	3x10 <sup>15</sup>	3x10 <sup>15</sup>	2x10 <sup>15</sup>	

Where retention of elastomeric properties is essential:

Short Time — Up to 600F (red compounds)

Short Time — Up to 500F (white, black and transparent compounds)

Continuous — Up to 500F (red compounds)

Continuous — Up to 400F (white, black and transparent compounds)

**HEAT RESISTANCE**

The following information is intended as a guide only and has been designed to help select those RTV compounds most desirable for your particular application. All properties are typical and should not be used in preparing specifications. For assistance and recommendations in the preparation of specifications, contact General Electric Silicone Products Department, Waterford, N. Y.

## 2 - PACKAGE RTV COMPOUNDS (Requires Curing Agent)

	METHYL—PHENYL RTV COMPOUNDS				DIMETHYL RTV COMPOUNDS												
	-511	-560	-577	-580	-602	-615	-616	-11	-20	-21	-30	-40	-41	-60	-77	-88	-90
	X	X									X			X			
	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X
								X		X	X		X	X			
	X	X	X	X		X	X				X			X		X	X
	White	Red	White	Red	Clear	Clear	Black	White	Pink	Pink	Red	White	White	Red	White	Red	Red
	Easily Pourable	Pourable	Spreadable Thixotropic Paste		Easily Pourable				Pourable	Pourable	Pourable	Pourable	Pourable	Pourable	Spreadable Thixotropic Paste		Stiff Paste
	200	400	6000	8000	12	30	40	120	250	250	250	400	400	500	6000	6000	12,000
	6	4	4	3	6	6	6	6	3	6	4	3	6	4	4	3	6
	1.18	1.42	1.35	1.49	0.99	1.02	1.22	1.18	1.35	1.31	1.45	1.35	1.31	1.47	1.33	1.48	1.50
	45	60	50	65	15	35	45	45	50	50	60	55	50	60	50	65	60
	350	800	480	800	—	925	925	350	450	550	850	550	500	800	500	750	750
	180	160	180	110	—	150	125	180	140	180	130	120	200	130	220	110	150
	25	45	25	40	—	25	25	15	25	30	40	25	30	40	25	40	75
	Below -150°F	Below -150°F	Below -150°F	Below -150°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F	Below -90°F
	.2-6	.2-6	.2-6	.2-6	<.2	<.2	<.2	.2-6	.2-6	.2-6	.2-6	.2-6	.2-6	.2-6	.2-6	.2-6	.2-6
	0.15	0.18	0.18	0.18	0.10	0.11	0.16	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	12x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	16.2x10 <sup>-5</sup>	15.3x10 <sup>-5</sup>	15x10 <sup>-5</sup>	14.1x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>	11.4x10 <sup>-5</sup>
	550	550	485	470	500	500	500	500	500	500	475	500	500	500	475	450	500
	4.1	4.4	4.1	4.1	3.0	3.0	3.0	3.6	3.6	3.4	4.0	4.2	3.8	3.7	4.0	4.0	4.0
	.005	.006	.006	.006	.001	.001	.001	.019	.011	.01	.025	.02	.14	.020	.018	.023	.020
	1x10 <sup>15</sup>	1x10 <sup>15</sup>	1x10 <sup>15</sup>	1x10 <sup>15</sup>	1x10 <sup>14</sup>	1x10 <sup>15</sup>	1x10 <sup>15</sup>	6x10 <sup>14</sup>	5x10 <sup>13</sup>	8.8x10 <sup>14</sup>	2.9x10 <sup>15</sup>	1x10 <sup>14</sup>	1.5x10 <sup>14</sup>	1.3x10 <sup>14</sup>	1x10 <sup>15</sup>	1x10 <sup>14</sup>	1.3x10 <sup>14</sup>

Elastomeric properties not essential:  
Integrity of material and electrical insulating ability retained for extended periods at 600F and above

Thermal Insulation:  
Short time — up to 9000F.



# RTV

## adhesives and sealants

RTV silicone rubber compounds have found wide use as adhesives, sealants and caulking materials. Recently introduced ready-to-use RTV's are specifically designed for these applications. They are packaged in convenient aluminum tubes or plastic cartridges, in white, red, black, transparent and aluminum compounds. They cure without addition of a curing agent and form strong bonds to most materials.

Because of its easy application, fast cure, and excellent bonding ability, RTV is an ideal adhesive/sealant for an unlimited number of industrial applications, ranging from production work to fast, effective maintenance and on-the-spot repairs.

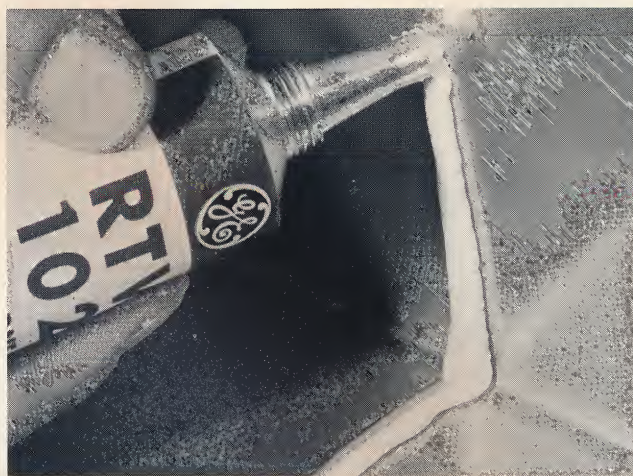
Typical applications include use in potting electrical terminal connections, for sealing and encapsulating electronic equipment, for bonding strain gages, patching and repairing silicone rubber fabricated parts, bonding silicone rubber gaskets to metal surfaces, and for virtually all applications requiring a flexible and durable adhesive bond.

All of the two-package RTV compounds may also be used as sealants provided a suitable primer is used.

RTV sealants have been used extensively on the most advanced jet liners and on almost every U.S. missile and space vehicle. No other sealant can match their extreme temperature performance, durability, flexibility and ease of application. These tough, flexible sealants can be bonded to most materials with a bond strength exceeding the strength of the rubber itself.

### PRODUCT SUGGESTIONS

Ready-to-use RTV's, which require no curing agent or primer, are recommended for most general purpose applications. Of this group, RTV-106 is recommended for high temperature application (to 600°F). With the exception



**EASILY APPLIED**, ready-to-use adhesive/sealant won't sag or flow, even on vertical and overhead surfaces.

of RTV-112, which is a low-viscosity pourable liquid, all ready-to-use RTV's are spreadable paste compounds.

Two-package RTV sealants require that surfaces be primed before application. RTV-88 and RTV-90, moderate viscosity paste compounds, are recommended for extreme high temperature applications. RTV-60 is useful in applications where the sealant is permitted to flow into place.

### APPLICATION SUGGESTIONS

To obtain good bonds, the bonding surface should be thoroughly cleaned. Ready-to-use RTV's can be applied direct from tube or cartridge. Automatic dispensing equipment is available for applying all RTV silicone sealants.

For more detailed information, refer to Technical Data Books S-2 and S-3.



A tight seal is assured by applying RTV adhesive as a self-forming gasket.



X-15 rocket plane has critical pressurized areas sealed with G-E RTV silicone rubber.



# SILICONES for potting and encapsulating

The good electrical properties of RTV silicone rubber, along with its resistance to ozone and temperature extremes, have led to its wide use as electrical insulation. It has been used for potting electronic components and assemblies, for impregnating and encapsulating aircraft transformers, for encapsulating random-wound electric motors and for dozens of other electrical applications.

RTV compounds have several advantages over most other potting and encapsulating materials. They cure at room temperature and do not generate heat while curing. Heat sensitive components can therefore be safely encapsulated in RTV silicone rubber.

Since RTV compounds are 100% non-volatile, they do not shrink significantly on curing and therefore do not form voids or place any stress on encapsulated components. They are available in low viscosities which permit coil impregnation as well as encapsulation. Resilient RTV silicone rubber provides extra physical protection since it does not transmit shock and vibration as inflexible encapsulants do.

All of these compounds permit easy repair of encapsulated assemblies simply by cutting away a portion of the cured material. RTV-602, a clear potting compound which cures at low temperatures, is most easily repaired and, being transparent, permits visual inspection of potted assemblies.

## PRODUCT SUGGESTIONS

All of the compounds described in this bulletin have excellent electrical properties and may be used for potting and encapsulating.

Clear RTV-602, a low viscosity compound, should be used where visual inspection and easy repair are important. It provides excellent protection against thermal and mechanical shock. RTV-615, another clear potting compound, has improved properties over previously available clear compounds. In addition, it is a faster curing system, suitable for production line use. Also available is a black silicone compound which exhibits similar performance characteristics.



Instant insulation can be obtained by applying RTV-102 to virtually any type of exposed electrical connections. RTV-102 is ready-to-use, requires no catalyst. Handy on production lines or in an electrician's tool kit.



Different potting and encapsulating problems require different solutions. General Electric offers a complete range of RTV silicones. RTV-602 is transparent, resilient and easy to repair. RTV liquid silicone rubber compounds offer good physical strength, resiliency and a selection of viscosities for impregnation, potting, conformal coatings or sealing.

RTV-11 is most widely used because of the combination of low viscosity and good physical properties. Where better physical strength is required, RTV-30 or RTV-60 are used. RTV-60 is one compound recommended for random-wound motor encapsulation.

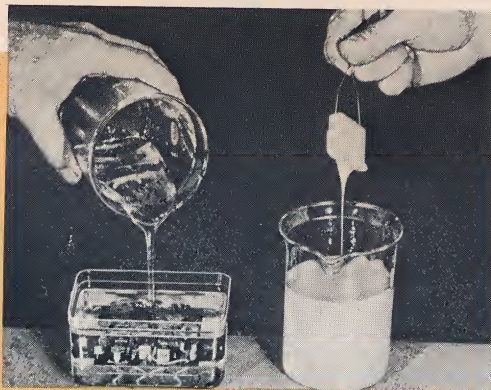
Ready-to-use, single-package RTV compounds find many potting and sealing applications, particularly in electrical repair work.

## APPLICATION SUGGESTIONS

In electronic potting, it is usually advisable to deaerate the material to remove any air bubbles that might be trapped and cause voids. Deaerating the potted equipment during the potting operation is also a wise precaution.

Priming of components before potting is recommended for optimum electrical properties.

For more complete instructions, ask for Technical Data Book S-3.



Usually applied by pouring or dipping, silicone compounds may also be sprayed, brushed or applied by pressure guns or automatic equipment.



Random-wound motors encapsulated with RTV are being used in applications where totally enclosed motors were previously used. This extra protection is available in new motors or can be added when motors are re-wound.

# **SILICONES** for high and low temperature aerospace applications

Specially formulated to meet the extreme conditions which characterize aerospace environments is a new group of methyl-phenyl base RTV compounds. These new RTV silicone rubber materials have elongations up to 200% even at temperatures of  $-150^{\circ}\text{F}$  and below. At the same time, they provide long-term resistance to high temperatures, thus affording extended usage as thermal insulation.

Like all available RTV compounds, these new materials cure at room temperature, after the addition of a curing agent, to form a durable and resilient protective silicone rubber. Available in the form of pourable liquids or thixotropic pastes, these compounds are used wherever extreme performance is required, including a wide range of electrical and mechanical insulation applications on apparatus operating in environments approaching cryogenic temperatures. In addition, they are used as thermal insulation for firewall sealants and in heat shield fabrication in ablative applications.

## PRODUCT SUGGESTIONS

RTV methyl phenyl-base compounds differ primarily in viscosity, ranging from pourable compounds to heavy, thixotropic pastes. They are used for sealing, caulking and insulating where maintained low-temperature flexibility is important, as well as for high-temperature-resistant coatings and shields.

RTV-511 is a white, easily pourable compound for potting and encapsulating where extreme low temperature flexibility is needed. RTV-560, a red, moderate-viscosity compound, provides the best thermal stability of any pourable RTV compound.

For sealing, patching and caulking, RTV-577 and RTV-580, spreadable pastes, are recommended.



New RTV compounds maintain flexibility in temperatures to  $-150^{\circ}\text{F}$  and below.

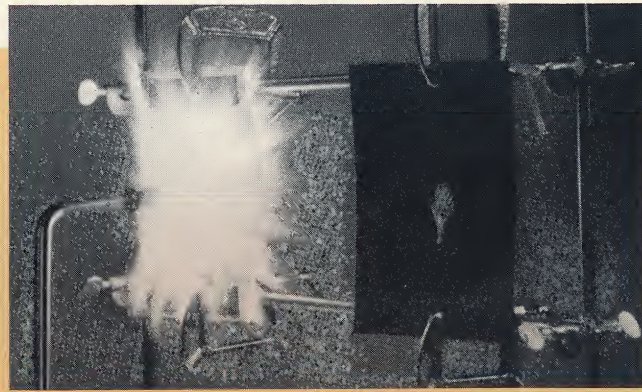
## APPLICATION SUGGESTIONS

Like the standard, two package RTV's, methyl-phenyl RTV's are cured by the addition of a curing agent. Mixing, priming and curing technique are described in Technical Data Book S-3.

These new RTV compounds can be bonded to most metals, plastics, glass, etc. by using a suitable primer. When properly applied, bonds stronger than the rubber itself will result.



The Mercury spacecraft is completely sealed with heat-resistant RTV.



New methyl-phenyl compounds exhibit excellent resistance to flame. For example, RTV-511 and -560 do not propagate flame when subjected to repeated 15 second exposures to a  $2000^{\circ}\text{F}$  flame test.



# RTV

## SILICONE RUBBER

### as a flexible mold material

No other flexible mold material offers the precise reproduction of surface detail possible with RTV silicone rubber. RTV molds are being used in many applications which formerly required expensive metal molds or for making duplicates which were previously hand machined in order to obtain the desired accuracy. In these cases, the use of RTV silicone rubber has made possible very substantial savings.

Because of its natural release ability, an RTV mold easily releases parts cast in epoxy resins *without a release agent*. Since RTV cures with extremely little shrinkage, the mold configuration will be identical with the original. Its flexibility permits the reproduction of complicated shapes and undercuts. All of these factors provide a combination of quality and economy previously unavailable with any mold material.

RTV molds are frequently used for low-cost plastic tooling, for reproducing models and prototype parts, for short production runs of plastic parts, and for making replacements for broken parts by using the broken parts as a master. RTV molds are also finding increased use by hobbyists, jewelry manufacturers and museums. It makes possible the precise reproduction of art objects and artifacts.

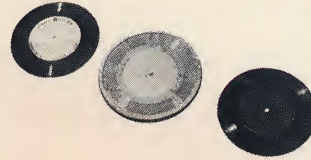
#### PRODUCT SUGGESTIONS

RTV-11, because of its low viscosity, is useful in reproducing extremely fine detail. However, physical properties are relatively poor.

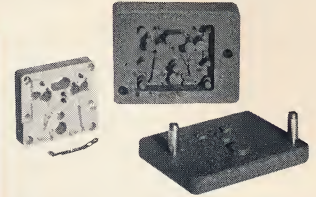
RTV-30, with somewhat higher viscosity, offers much better physical properties and will permit a fairly high number of reproductions from one mold.

RTV-60 has been widely used because of its good physical properties.

RTV-88 is often used for molding objects with large vertical surfaces. It can be spread over the object to form a thin mold which can be backed up with a less expensive material. Details of this process are available on request.



Epoxy reproduction of master record has good fidelity, proving that microgrooves were reproduced precisely by the RTV mold.

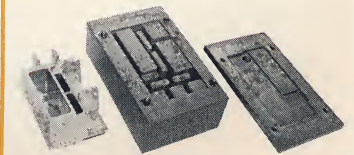


Fixtures previously machined from laminated plastic are cast in a two-part RTV mold — at a saving of over \$150 on each fixture.

Hobbyists and jewelry manufacturers are finding many uses for flexible RTV molds.



Complex designs, undercuts, etc., present no problems with RTV molds.



The other RTV compounds are also useful as mold materials. User selects viscosity based on his particular requirements.

#### APPLICATION SUGGESTIONS

Making flexible molds with RTV is easy when you follow the simple steps illustrated on this page.

For extremely high-quality reproduction, both the mold and the reproduction may be cured in a pressure tank under 50 to 95 pounds air pressure. A low-cost paint pressure tank is adequate.

For more complete instructions, ask for bulletin CDS-191.

#### THREE EASY STEPS TO MAKE AN RTV MOLD



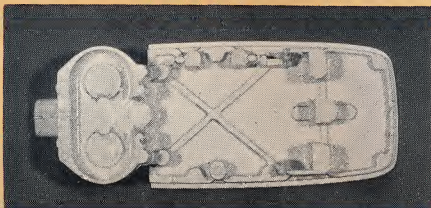
1. Mix RTV and curing agent. Avoid air entrapment and bubbles. Vacuum treatment in a deaerator will assure complete air removal.



2. Paint RTV on master pattern to assure complete coverage and penetration into fine details. RTV-60 aerosol may be used.

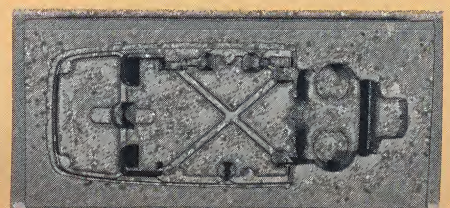


3. Pour remainder of RTV over pattern. RTV can be retained with wooden blocks or a cardboard box.



### result

A flexible mold that will provide precise plastic reproductions of the master pattern.





An ordinary plastic bottle makes a handy applicator for catalyzed RTV.

## tips on using

**NOTE:** The following items are intended to provide a general guide to the use of RTV products and to demonstrate their application versatility. For full information, the bulletins listed on the back cover are recommended.



# RTV

## SILICONE

## RUBBER

### CURING AGENTS AND CURE RATES

Dibutyl tin dilaurate (Thermolite-12\*) is the curing agent recommended for two-package RTV in most applications. Used in concentrations of 0.1 to 0.5 percent by weight, it cures at moderate speeds. Higher catalyst concentrations result in faster cure rates. Tin octoate (Nuocure 28\*) is used when cure time of 30 minutes or less are required. Faster cures naturally result in less working time or pot life (time between compound mixing and cessation of flow). The chart below provides an easy guide for measuring curing agents for most applications.

Cure rates can be accelerated by increasing temperatures or retarded by lower temperatures. If desired, cured RTV can be stored below 0°F for several days, then oven cured in less than one hour.

RTV-602 clear potting compound is cured with curing agent SRC-04 (cures at moderate speeds) or SRC-05 (fast cure). Room temperature cures in less than 24 hours are possible, although moderate temperatures of 150°-175°F are frequently used to accelerate cure rates.

### ELIMINATING AIR BUBBLES AND VOIDS

Air may be entrapped during mixing or application, which will cause voids in the cured rubber. Vacuum treatment in a deaerator will help eliminate this problem. For 150

grams of compound, 15 minutes under vacuum of 5-10 mm Hg is usually sufficient.

### KEEPING SHRINKAGE TO A MINIMUM

Linear shrinkage of 0.2 to 0.6% during cure can be expected due to loss of volatiles (catalyst and cure-reaction by-products). Curing at elevated temperatures may increase shrinkage. For minimum shrinkage, cure with minimum curing agent at room temperature.

### BONDING

For bonding RTV compounds (except RTV-102), the bonding surface should be primed with G-E SS-4004 (pink) or SS-4044 (clear) primer. Porous surfaces may require two coats. Primers should be applied to clean surfaces and allowed to air dry for at least one hour.

The ready-to-use RTV adhesive-sealants bond to most clean surfaces without a primer.

### LOWERING VISCOSITY WITH RTV DILUENTS

Viscosity of RTV compounds can be lowered by the addition of RTV-910 or RTV-911 diluents. The use of these diluents will affect cured physical properties somewhat but does not affect electrical properties.

### MEASURING GUIDE To Obtain These Curing Agent Concentrations

WEIGHT OF RTV		0.1% Dibutyl Tin Dilaurate (Pot life 2-6 hrs.)		0.5% Dibutyl Tin Dilaurate (Pot life 1-2 hrs.)		1% Tin Octoate (Pot life less than 15 min.)	
		ADD THESE AMOUNTS					
Grams	Oz.	Grams	Drops**	Grams	Drops**	Grams	Drops**
20	..	.02	1	0.10	5	0.20	9
57	2	.06	3	0.29	14	0.57	24
100	..	.10	5	0.50	25	1.00	43
113	4	.11	6	0.57	30	1.13	49
200	..	.20	10	1.00	50	2.00	85
227	8	.23	12	1.14	60	2.27	97
454	16	.45	23	2.27	118	4.54	194
Grams	Lbs.						
2268	5	2.3	..	11.3	..	22.9	..
4536	10	4.5	..	22.7	..	45.4	..

**NOTE:** Amount of curing agent shown in this table is intended only to be used as a guide. Other amounts may be suitable, depending upon type and concentration used.

\*Thermolite — Reg. Trade Mark, M & T Chemical Corp.

Nuocure — Trade Mark, Nuodex Products Co.

\*\*Measured from conventional-type medicine dropper.



# RTV

## SILICONE

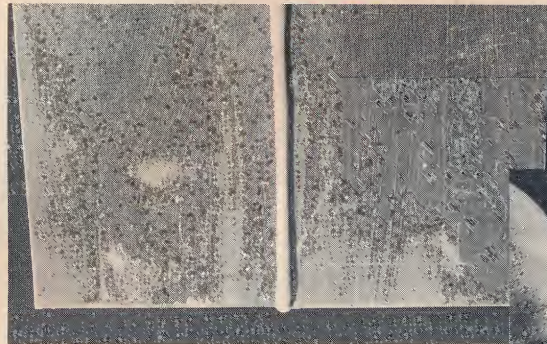
## RUBBER

is easy to use!

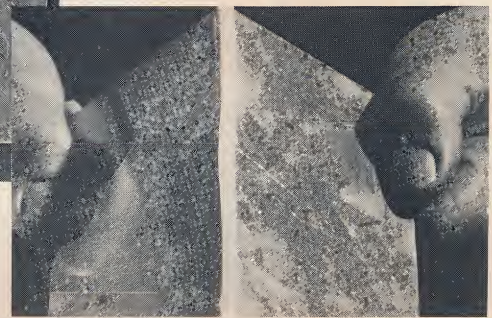
### READY-TO-USE RTV ADHESIVE/SEALANT



1 Apply directly from tube — no catalyst or primer needed.



2 Cures at room temperature on exposure to normal moisture in air.



3 Cures to durable, flexible silicone rubber. Forms excellent bonds.



### APPLYING RTV BY SPRAY

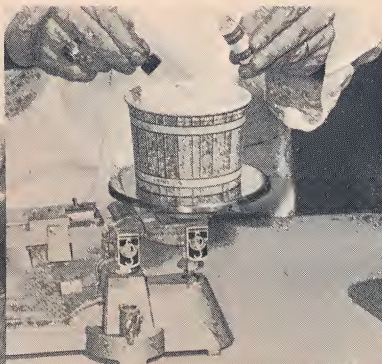
RTV compounds, after being diluted with mineral spirits or equivalent solvent, may be sprayed in commercial spray equipment. They can be catalyzed before spraying, or the catalyst may be oversprayed as a second coat.

RTV-60 silicone rubber and curing agent are available in aerosol packages for convenient application.

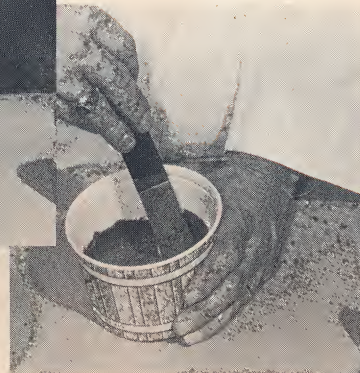
### TWO-PACKAGE RTV COMPOUNDS



1 Measure sufficient RTV for your application.



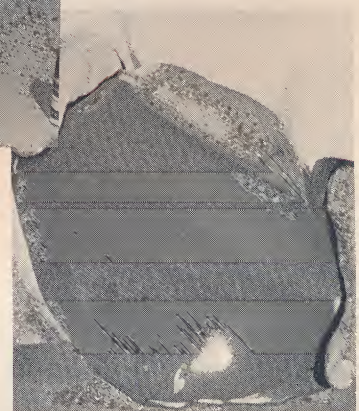
2 Add curing agent. Quantity and type will determine cure rate.



3 Mix thoroughly. Keep air entrapment and bubbles to a minimum.

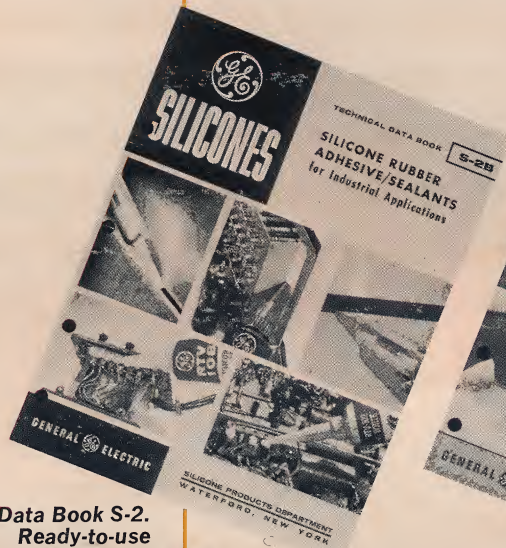


4 Apply by any convenient method — pouring, dipping, brushing.

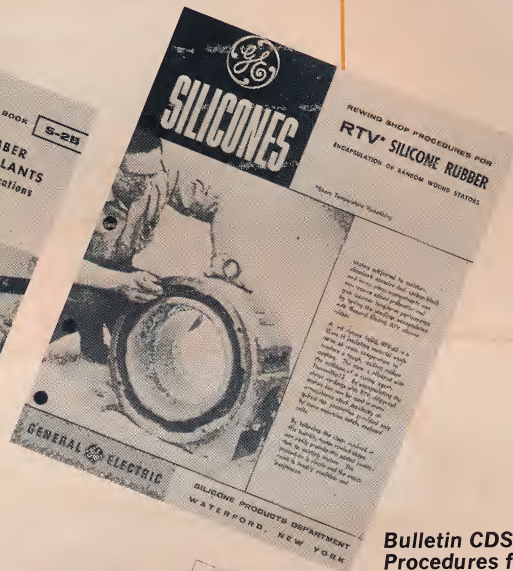


5 Allow to cure at room temperature — forms durable, resilient rubber.

For more information, write for these Bulletins or contact your nearest General Electric silicone sales office



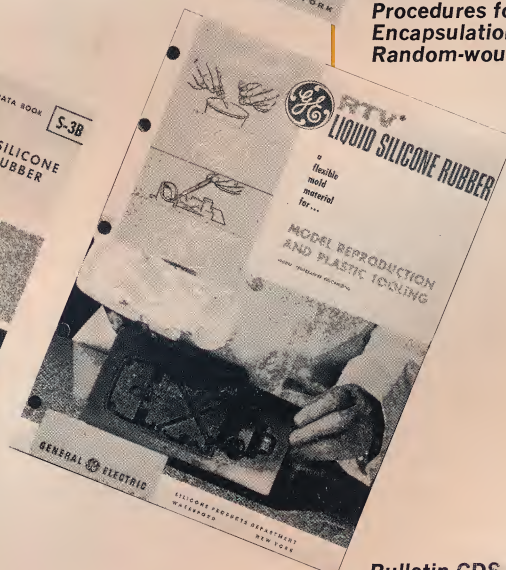
Technical Data Book S-2.  
Ready-to-use  
Adhesive/Sealant



Bulletin CDS-254.  
Procedures for RTV  
Encapsulation of  
Random-wound Motors



Technical Data Book S-3.  
Two-Package  
RTV Silicone Rubber



Bulletin CDS-191.  
RTV Flexible Molds

SILICONE PRODUCTS DEPARTMENT

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